



June 20, 2022

Mr. Jason Alberich
State of Washington
Department of Ecology
Air Quality Program
Olympia, WA 98504-7600

Submitted as online comment

RE: Public Comments on Clean Vehicle program (Chapter 173-423 WAC)

Mr. Alberich,

Allison Transmission, Inc. ("Allison") is pleased to comment on the State of Washington Department of Ecology ("Ecology") proposed regulatory amendments (known as Clean Vehicles program) designed to adopt California's more protective vehicle emission standards for new vehicles starting with MY 2025 and later and sold in the state of Washington.

Headquartered in Indianapolis, Indiana with over 1,000 dealer and distributor locations in the United States, Allison is well-positioned to be part of this process. Our company is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles and is a leader in hybrid propulsion systems for city buses; in addition, Allison's emerging eGen Power™ electric e-Axles offer bolt-in solutions compatible with current vehicle frames, suspensions, and wheel ends, compatible with full battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV) as well as range extending hybrid applications. With a market presence in more than 80 countries, Allison's products are specified by over 250 of the world's leading vehicle manufacturers and are used in a variety of applications including refuse, construction, utilities, fire, pick-up and delivery, distribution, bus, motorhomes, defense and energy.

Ecology's proposed Clean Vehicles program is to substantively adopt California Air Resource Board's ("CARB") Phase 2 Greenhouse Gas (GHG) regulation for medium- and heavy-duty (MHD) engines and vehicles (Phase 2 GHG), Heavy-duty Omnibus regulation for heavy-duty (HD) engines and vehicles (HD Omnibus).

However, to maximize the opportunities for success, Allison would recommend several changes to the proposed programs. Specifically, prior to finalization of regulatory language, Ecology should consider the following actions:

- Significant NOx reductions that could be driving Washington’s desire to adopt CARB HD Omnibus are expected to be contained within EPA Clean Trucks Plan. Ecology should weigh benefits and costs of adopting CARB HD Omnibus against the alternative for aligned federal NOx and emissions warranty that will come through EPA Clean Trucks Plan. Keeping aligned vehicle costs and technology availability with neighboring states provides better incentives for fleets and end users to keep business and truck registrations within Washington.
- Ecology should consider the value that data from fleet reporting efforts being undertaken will lend in terms of best identifying sources of NOx pollution within the state. Considering Pre-10 powertrains emit considerably greater pollutants into the air than today’s available technology certified to EPA standards, programs that incentivize replacement of the oldest technology can be a lower cost and very effective way to improve ambient air quality. Allison understands from Ecology workshops an intention to gather data about fleet population in the state. Ahead of receiving that valuable data, market sources can project operational population in US states using IHS Markit insights. This resource estimates that over half of the trucks operating in WA do not meet EPA 2010 standards. Specifically as of June 2022, WA is estimated to rank 29th of US states for high percentage of 2010 or newer NOx and PM certified engines, at 46%. Incentivizing fleet replacement of Pre-10 with EPA federally certified engines today and in the future under Clean Trucks Plan would not only benefit mobile emissions, but highway safety through more modern ADAS (Advanced Driver Assistance Systems).
- Ecology should consider flexible compliance pathways for specialty trucks and other work trucks, such as construction and waste management vehicles. Specialty trucks are normally built-to-order at Body Builders with accessories and equipment (such as power take-off) which are designed to allow the truck to be used as a tool to create or maintain infrastructure. These specialized equipment functions based on unique vocation requirements make this equipment more likely to be small volume and to have a single owner, differentiating specialized equipment from freight vehicles which can more easily be assigned fair commodity-like value through resale used truck markets.
- Allison is supportive of Ecology’s exemptions for new diesel-fueled buses sold to a transit agency and for authorized emergency vehicles. These exemptions ensure that customers are not hindered by limited product offerings.
- Ecology should note several issues attendant to CARB’s revision of warranty provisions and related Emissions Warranty Information and Reporting (“EWIR”) regulations. Specifically:
 - Allison supports keeping greenhouse gas emission warranties separate from those applicable to criteria pollutants, however

- Ecology should not adopt CARB's "one size fits all" approach for emissions warranty and useful life. Both from a technical perspective, in terms of configuration and systems, and from a policy perspective, Ecology should recognize that warranties for heavy-duty systems need to be tailored the product line.
- Ecology should revise CARB's changes to emission warranty reporting and enforcement provisions. However, CARB's large reduction for the defined reporting threshold is a 50% step down and Ecology should not finalize regulations which would automatically trigger recall or corrective actions based solely on exceedance of reporting thresholds. Instead, Ecology must assess whether any defects are significant and/or significantly impact emissions.
- Ecology should not finalize provisions that would extend emission warranty provisions to vehicles registered outside of the State of California (or Washington). Such an action is both unsupported in the administrative record and contrary to law. CARB has not cited adequate statutory authority for this action, and extraterritorial application of California warranties to business and individuals in other states raises issues.

We thank you for your attention to our views regarding the proposed amendments. As Ecology finalizes this proposal, we invite further discussion to clarify our suggestions as well as answer questions about this submission. We would be pleased to offer our perspective based on our relationship and experience supporting the commercial vehicle requirements of vocational end-customers. If Allison can offer value to Ecology during this rulemaking process, please contact Barbara Chance at 317-242-1203 or at Barbara.Chance@allisontransmission.com.

Sincerely,



Barbara Chance
Allison Transmission, Inc.
Director, Mobile Source Emissions Regulatory Compliance

**Comments submitted by Allison Transmission, Inc. for Washington
Department of Ecology's Clean Vehicle program (Chapter 173-423 WAC)**

I. Ecology Must Carefully Consider Impact of Proposed Rulemaking on Vocational Vehicle Market

A. Ecology Should Reconsider Mandating Use of California's Emissions Warranty and Emissions Warranty Information Reporting Requirements

1. CARB Correctly Recognizes that Warranty Issues are Different for Greenhouse Gas versus Criteria Air Pollutant Issues

Allison supports CARB's decision to maintain the distinction between warranted parts for criteria and greenhouse gas emissions. Specifically, CARB has not proposed changes to the definition of "warranted part" with respect to heavy-duty vehicles certified to greenhouse gas emission standards.¹ CARB is maintaining the existing cross-reference to parts contained in federal regulations for greenhouse gas pollutants (40 C.F.R. §1037.102).

2. Ecology Should Not Adopt CARB's "One Size Fits All" Approach to Emission Warranty and Useful Life Periods

Allison supports further investigation by Ecology of mechanisms which would "vary the length of warranty coverage across different types of components."² It may not be possible in all cases to design, or cost-effectively design, every emission-related component to reach the same useful life period required with respect to a new engine. Moreover, consideration must be given to the upfront costs that could be experienced in adopting a singular focus on ensuring that all components meet the same useful life periods.³

Allison believes that while Ecology should consider longer regulatory useful life periods and warranties, Ecology should not move forward without a thorough consideration of individual components and systems. To meet the much more stringent emission levels contemplated, it is likely that new technologies may be needed. Not all technologies are created equally; major emission control systems and their components will not age in uniform manner.

The stop time data for a representative sample of the data for these vehicles is summarized below. While not comprehensive of the entire vocational vehicle sector, this data does provide some indication of the wide variance in actual vehicle use experienced by this sector:

¹ 13 CCR §2035(c)(3).

² 85 Federal Register at 3,325

³ CARB received comments during its Post-September 26 [2019] Workshop that there could be "[large projected cost increases to cover warranty out to proposed periods." See page 7 of workshop presentation.

Vocation	% Time stopped in Drive*	% Time stopped in Neutral*	Total % Time stopped
Transit Bus	24.1	12.1	36.2
Refuse	11.5	34.5	46
City Delivery	3.9	11.9	15.8
Concrete Mixer	5.2	58.3	63.5
Dump Truck	4.3	21.2	25.5
School Bus	12.1	24.6	36.7
Tour Coach	3.4	17.1	20.5

* This data does not differentiate between stopped in traffic and parked.

Ecology should also consider tailoring emissions warranties to different vehicle classes and vocations, rather than just relying on the type of engine involved and weight class. Vocational markets tend to value warranties based on years and hours of use -- whereas freight and tractor trailers tend to value warranties that cover more mileage. Allison has shared data with regulators regarding the average mileage of vocational segments to illustrate which applications are more likely to “age out” of warranty due demanding, but lower speed utilization drive cycles, rather than “mile out” of warranty as is comment with in tractor applications.

Vocation	Annual mileage of 70th% customers
P&D Other	42,000
Straight Truck	36,000
Utility	15,600
Fire, Pumper	10,800
Bus, School Front Engine	19,200
Bus, Shuttle	36,000
Refuse, Packer	24,000
Dump Truck, Const.	48,000
Coach Intercity	72,000
Bus, City Transit	48,000
vs EPA referenced SH Tractor	75,000
vs EPA referenced LH Tractor	144,000

Source: ATI internal warranty data, representing top 70% of annual mileage by vocation

While CARB has proposed both mileage and hours as parameters, the Agency could utilize a finer-targeted system that prioritizes miles in some sectors such as long-haul freight, while prioritizing time/hours in vocational segments. A more focused and tailored approach to emissions warranties obviously will have the downside of increased complexity and additional reliance on warranty tracking

systems. But at the same time, the costs of extended warranty periods could be better contained through a targeted approach. Allison has included our own Extended Coverage Vocation Codes below so that WA Department of Ecology may review the 2022 vocational models Allison uses to differentiate warranty terms and pricing to meet customer needs based on different customer usage. Within the vocational market applications vary in use and how end- users value different coverage terms beyond base warranty

Extended Coverage Vocation Codes

P&D AND BEVERAGE		SHUTTLE BUS		FIRE AND EMERGENCY	
ST09	P&D, Beverage	BU08	Bus, Shuttle	ST02	Ambulance, Emergency Support Vehicles
ST10	P&D, Tanker Fuel/Propane/Pool	BU09	Bus, Other	ST03	Fire, Articulated
ST11	P&D, Household Moving			ST04	Fire, Pumper
ST12	P&D, Postal	REFUSE PACKER		ST05	Fire, Other
ST13	P&D, Other	ST15	Refuse, Packer - Landfill		
		ST16	Refuse, Packer - No Landfill	UTILITY AND OTHER	
MOTORCOACH		AGRICULTURE		ST18	Snow Plow
BU03	Coach, Intercity	AG01	Tractor, Farm	ST19	Tree Service/Lawn Care/Landscaping
BU05	Coach, Tour	AG02	Hay Squeeze, Other	ST20	Utility, with Bucket, Auger, etc.
MOTORHOME		AG03	Spreader/Sprayer	ST21	Wrecker
BU04	Motorhome	DUMP TRUCKS/MIXERS		ST22	Straight Truck - Other
TRUCK RV		ST01	Dump Truck, Construction	TT01	Tractor - Single Axle
ST14	Truck RV	ST06	Dump Truck Highway Maintenance	TT02	Tractor - Tandem Axle
SCHOOL BUS		ST07	Concrete Mixer	TT05	Tractor - Other
BU06	Bus, School - Front Engine	MILITARY		ST08	One Way Rental
BU07	Bus, School - Rear Engine	SP02	Military	AG04	Feedlot Truck
OIL FIELD SERVICES				SP01	Aircraft Support
OFO5	Accessory Power			SP03	Dock Spotter
OFO6	Propulsion			SP04	Street Sweeper
				SP05	Special - Other
				ST17	Refuse, Roll-on/Roll-off

3. Ecology should review California’s Emission Warranty Information Reporting (EWIR) Program as it is Unwarranted, Overly Burdensome

California’s EWIR program requires manufacturers to keep records and if the number of claims made for emissions-related components control components exceed certain thresholds, file a report for vehicles within a family or test group.⁴ On the basis of EWIR data, manufacturers are also required to file a field information report (“FIR”) containing unscreened warranty claims for a specific emission related component.⁵ Under current regulations, additional actions may also flow from this data such as corrective actions, recall or the provision of extended warranties. CARB is requiring that the reporting threshold for EWIR reports be reduced from 1% or 25 claims to 1% or 12 claims, whichever is greater starting in 2022. CARB is also requiring that EWIR reporting continue throughout the useful life of a component.

⁴ §2144(a)

⁵ §2145(a)

In a substantial change from past requirements, CARB is additionally requiring that recalls be mandated when failure levels exceed certain levels (4 percent or 25 vehicles (whichever is greater) for 2024-2026 vehicles and the same levels for 2027 to 2030 Model Year vehicles for the first 5 years of the warranty period)⁶ Currently, such vehicles were “subject to” recall by CARB, but recall is not automatically imposed. CARB is also proposing that such vehicles either be recalled or subject to other corrective action based on exceeding the percentage/number of vehicle levels.⁷ The combined effect of these provisions is to create a default mechanism wherein recalls/corrective actions are imposed based on warranty claim occurrence only without a further assessment of the magnitude of the impact of any failure on actual emissions. Manufacturers would be required to submit a corrective action plan within 90 days of exceeding a corrective action threshold,⁸ and required recalls and corrective actions be automatically imposed “when the number of valid failures meets or exceeds the corrective action thresholds.”⁹

This default mechanism carries with it substantial and potentially expensive consequences. Under the proposed regulations, manufacturers would be required to recall and take corrective actions “including, but not limited to, providing an extended warranty as defined in Section 2166.1, to correct the systematic failure of certain identified vehicle components when the number of valid failures meet or exceed the corrective action thresholds.”¹⁰ For emission-related components, manufacturers are required to perform corrective actions based again solely on exceedance of the applicable threshold. Initiating corrective action for emission-related components would be required within 30 days of the corrective action plan approval, unless the manufacturer has shown good cause for the deadline to be extended.”¹¹

CARB justifies this large change in the current system as necessary to address several issues. CARB claims the reduction in reporting thresholds for EWIR reports is to account for small volume engine manufacturers.¹² At the same time, however, CARB does not proportionately “scale” the reporting threshold and allow higher levels for larger manufacturers, a result that would logically flow from CARB’s stated purpose. With regard to the overarching rationale to not consider the impact on failure rates on emissions, CARB indicates that:

- Currently, identifying potentially defective emission control components by warranty reporting requirements and the process of negotiating corrective action with manufacturers and determining the emissions impact of a component failure is lengthy,

⁶ Proposed amendments to §2143, Appendix A-1, Title 13 Proposed Regulation Order at 98.

⁷ *Id.*

⁸ Proposed amendment to §2146(a)(1), Appendix A-1 at 103.

⁹ Proposed §2167(a), Appendix A-1 at 113.

¹⁰ Proposed §2168(a), Appendix A-1 at 114.

¹¹ ISOR at III-65.

¹² *Id.* at 152.

which can delay corrective action and allow vehicles to operate with defective or faulty components with elevated emissions for years.¹³

- [M]anufacturers, particularly heavy-duty engine manufacturers, have generally not corrected problems for emission control components experiencing failure rates (CARB, 2016d). This is likely due to the limited amount of HDIUC testing conducted by CARB, the cost of recall and/or other factors such as bad publicity over faulty quality.¹⁴
- [T]he process of negotiating corrective actions with manufacturers and determining the emissions impact of a component failure is a lengthy process that can delay implementation of a corrective action for years. Consequently, heavy-duty vehicles can operate with defective components for extended periods of time, thereby emitting excessive levels of emissions over those time periods.¹⁵
- [I]f a manufacturer contests the need for a recall, even if CARB has identified a defective emissions control component, CARB then has the burden of proving that defective component could cause a substantial number of the vehicles or engines containing that defective component to exceed applicable emission standards over their useful lives.¹⁶

CARB indicates that amendments to the current process are needed to “clarify manufacturer responsibilities.”¹⁷ But the amendments are not a mere “clarification.” They are instead a fundamental shift away from an enforcement strategy that is focused on emissions to one that is based solely on numbers, no matter whether any emission impacts are significant. Under the proposed amendments, there would be no evaluation of the actual need for a recall pursuant to 13 CCR §2148 for any model year vehicle 2024 and later.¹⁸

4. Ecology Should Not Finalize Proposed Regulations Extending Warranty and Useful Life Requirements to Vehicles Registered Outside of Washington/California

CARB amended current regulations (13 CCR §2035(b)) that apply warranties to California vehicles that are registered in the state “regardless of their original point of registration.” Starting in 2027, warranty provisions would apply to a California-certified vehicle “regardless of whether they are registered in California.”¹⁹

¹³ *Id.*, ES-7.

¹⁴ *Id.*, II-19.

¹⁵ *Id.*

¹⁶ *Id.*, II-20.

¹⁷ *Id.*

¹⁸ The proposed amendments to 13 CCR §2143 do not cross-reference 13 CCR §2148(a) or (b) for 2024 and later heavy-duty diesel and Otto-cycle engines, and heavy duty vehicles. Nor do the amendments provide for any determination of necessity that is allowed for earlier model years under the current 13 CCR §2143.

¹⁹ 13 CCR §2035(b)(1)(C) (emphasis added). This change would also apply to California-certified trailers model years 2020 and later. *Id.* §2035(b)(3). See Appendix A-1, Title 13 Proposed Regulation Order.

Instead, while the legal authority cited by CARB grants authority over the regulation of vehicles within the state, this authority is silent with respect to control of out-of-state vehicles and those located and registered (perhaps permanently) in other states. Indeed, none of Health and Safety Code sections cited in CARB's HD Omnibus ISOR actually address vehicle registration at all. None of these provisions indicates that requirements for certification extend to entities that exist and/or operate beyond the borders of the state, much less that vehicles owned and registered in other states must comply with California vehicle warranty provisions simply by virtue of having obtained certification that vehicle meets California emission standards.

Applying California warranty provisions to vehicles owned by companies or persons outside of the state and registered in state other than California – as CARB's proposed regulations attempt to do – imposes measurable costs and burdens on such owners even if they never travel into the state of California. CARB attempts to justify the burden on the basis that such vehicles “may travel within the state in their normal operations.”²⁰ Indeed, some vehicles registered out-of-state may travel into California, but assuredly all vehicles will not. California's regulation is thus overly-inclusive.

Finally, CARB conjectures that California warranties on out-of-state vehicles will increase their value and thereby benefit their owners who sell the vehicles after having incurred higher up-front costs of purchasing the vehicle versus comparable non-California certified vehicles. There are numerous issues with this last claim including that CARB provides no quantification of the up-front costs to out-of-state buyers and operators. Instead, CARB assumes that there will be some cost-recovery of these costs when a vehicle owner sells a depreciated used vehicle solely on the basis that it holds a California warranty. But this obviously does not: (a) account for vehicles that are not subsequently sold; (b) vehicles that are sold past the time that a warranty applies. Nor is there any analysis of used-vehicle purchasers “willingness to pay” for the conjectured benefit of a California/Washington versus federal warranty.

IV. Conclusion

Allison appreciates the opportunity to provide comment on Ecology's pending regulations. Allison supports the continued evolution of vehicle propulsion technology and the broad goal of reducing emissions of oxides of nitrogen and CO₂ from the transportation sector. In several respects, however, Allison believes that the proposed regulations could be improved – and achieve better near-term results – by allowing for additional flexibility in the imposition of NO_x, OBD, and emissions warranty and useful life requirements. Allison believes that more flexible compliance pathways should be considered for vocational vehicles and other work trucks.

²⁰ ISOR at III-42 (emphasis added).

Allison is concerned about adopting requirements such as emissions warranty and warranty information reporting without consideration to costs and administrative burdens.

Allison also believes that the final regulatory product could be improved by additional, detailed analysis of different commercial vehicle sectors. This analysis would help Ecology better tailor its regulatory requirements to unique demands of the medium- and heavy-duty vehicle sector. Finally, we believe that Ecology could benefit from further examination of the overall costs of the program.